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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/219,195	12/21/1998	FRANCIS CHEE-SHUEN LEE	SA997115	2143

7590

05/22/2002

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EXAMINER

CASTRO, ANGEL A

ART UNIT

PAPER NUMBER

2651

DATE MAILED: 05/22/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

SM

Office Action Summary

Application No.

09/219,195

Applicant(s)

LEE ET AL.

Examiner

Angel A Castro

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 February 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 14-43 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 18-20, 27-37, 39 and 41-43 is/are allowed.
- 6) ☒ Claim(s) 14-17, 21-26, 38 and 40 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

This Office Action is in response to the Remarks filed on 2/25/2002.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 14-17, 21-22, 24-26, 38 and 40 are rejected under 35 U.S.C. 102(b) as being anticipated by Kudo et al (U.S. Pat. 5,657,186).

Regarding claims 14, 21 and 22, Kudo discloses a suspension assembly (figures 3-7) comprising a slider/head assembly 76 having a connecting end 78a; a suspension 30 having a connecting end (33a, 33b, 33c, 33d) and electrically conducting paths 32; and an interconnect module 79 coupling the connecting ends of the suspension and the slider/head assembly to route one or more data signals between the electrically conducting paths and the slider/head assembly, such that the connecting end of the suspension is positioned in a first direction (the plane of the suspension) and the connecting end of the slider/head is positioned in a second direction (the plane of the slider containing the connecting ends).

Regarding claims 15, 25, Kudo shows that the suspension is an integrated lead suspension (see figures 3-6).

Regarding claims 16, 26, Kudo shows the suspension in-line mounted with the slider/head assembly (figure 7).

Regarding claim 17, Kudo shows that the slider/head assembly is orthogonally mounted onto said suspension (see figure 7).

Regarding claims 38 and 40, Kudo shows that the electrically conducting paths 32 are attached to the suspension (see figure 3).

Regarding claim 24, Kudo discloses the suspension assembly described above. Kudo also discloses that the suspension assembly is used in a rotating magnetic disk (column 1, lines 21-22, the disk inherently must have a spindle motor). It is also inherent that a magnetic disk drive must have an actuator.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kudo in view of Arya et al (U.S. Pat. 6,055,132).

Regarding claim 23, Kudo does not specifically disclose that the first device is a microactuator. Arya discloses an integrated lead suspension for attaching a microactuator. It would have been obvious to one of ordinary skill in the art at the time the invention was made

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to provide the assembly of Kudo with the microactuator as a first device as taught by Arya.

The rationale is as follows:

One of ordinary skill in the art would have been motivated to provide the assembly of Kudo with the microactuator as a first device as taught by Arya as doing this would allow to fine positioning the slider.

Response to Arguments

5. Applicant's arguments filed 2/25/2002 have been fully considered but they are not persuasive. Applicant asserts in page 3, lines 7-11:

“While the wires connected to the connectors 78a – 78d may route upward, the connectors 78a - 78d themselves face the connectors 33a - 33d and are oriented along the same horizontal axis as the connectors 33a - 33d. Thus, the connecting ends 78a-d and the connecting ends 33a - 33d are not positioned in first and second directions, as recited by claim 14.”

The examiner respectfully points out that the connecting ends 33a –33d of the suspension in the Kudo reference, are positioned in a first direction (the plane of the suspension) and the connecting ends 78a – 78d of the slider are positioned in a second direction (the plane of the slider that contains the connectors).

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Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Soeno et al (U.S. Pat. 6,246,552) discloses a read/write head including displacement generating means; Jurgenson (U.S. Pat. 5,808,834) discloses a laminated adapter (see figure 1).

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.


8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angel A Castro whose telephone number is 703-308-8435. The examiner can normally be reached on Monday through Thursday, 8 AM to 6 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Hudspeth can be reached on 703-308-4825. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-308-8435 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4750.

Angel Castro, Ph.D.
May 18, 2002



DAVID HUDSPETH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2000